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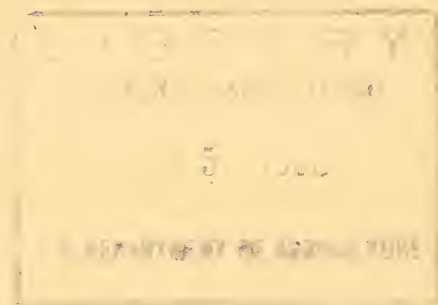


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UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Research Administration  
Bureau of Animal Industry

December 10, 1949

REPORT ON DEVELOPMENTS  
IN THE  
CAMPAIGN FOR THE ERADICATION OF  
FOOT-AND-MOUTH DISEASE  
IN MEXICO  
NO. 21



Note: This report has been prepared on the basis of the best information available at the time of compilation but is subject to later revision. It covers the principal developments since the issuance of the 20th report of July 21, 1949.

## Progress of Program

The first round of vaccinations of susceptible animals in the quarantine zone of Mexico was completed early in August, 1949, with the vaccination of more than 13,000,000 cattle, sheep, swine, and goats. Second vaccinations had been started in February, four months behind the first, and third vaccinations began in April. Both were well underway by the completion of the first. Fourth vaccinations were started early in August. By the end of November the second round was nearing completion. The enclosed map entitled "The Foot-and-Mouth Situation in Mexico" shows the progress of various rounds by November 10, 1949.

A total of 36,785,580 animals has been vaccinated since the beginning of the program, with 18,636,682 vaccinated since July 1 of this year. During November, 4,201,233 animals were vaccinated.

Brigades are finding and vaccinating more animals on the second and third rounds than on the first. Resistance since July has been largely passive, but a few actively hostile groups have been encountered in some areas, particularly in the States of Guerrero and Michoacan. However, owners generally are willing to accept vaccination of their animals after seeing no ill effects from previous vaccination.

Improvements and refinements of the organizational structure and operational procedures are constantly being made. For example, inspectors are assigned specific districts for which they are responsible. They are thus able to make accurate surveys of animals through monthly inspections and to assist the vaccination brigades in seeing that all animals are rounded up for vaccination. Enforcement of a recent regulation which requires proof of vaccination before susceptible animals can be moved to market or from one area to another has aided materially in achieving more thorough vaccination coverage. Livestock dealers and owners now require little prompting, as the penalty for evasion of the regulation is a fine as well as seizure of the animals involved. Actual vaccinations are as follows:

August	3,502,342	vaccinations
September	3,009,203	"
October	3,251,133	"
November	4,201,233	"

Vaccine is being produced by the Joint Commission in Mexico at a rate calculated to meet current needs. For the past four months production was as follows:

August	5,200,000	doses
September	3,800,000	"
October	4,000,000	"
November	3,200,000	"

In addition to meeting requirements of the current vaccination schedule the Commission has built a reserve of 10,000,000 doses. Mass production of vaccine has been a principal point in reducing operating costs. Earlier in the vaccination program, vaccine purchased from foreign sources cost as much as one dollar per dose. Last month, the cost to the United States of the entire operation in Mexico was about 45 cents per animal vaccinated.

The destroying of infected and exposed non-vaccinated animals is continued as part of the campaign against sporadic outbreaks of active infection. Since July 1, a total of 592 condemned animals has been destroyed and buried as compared to 7,329 in the first six months of 1949.



Other elements of the campaign also being continued are: Constant inspection of animals in all districts; quarantine and disinfection of contaminated premises; and information work regarding the program among livestock producers and the general public.

#### Commission Meets in Mexico City

The Joint Mexican-United States Commission for the Eradication of Foot-and-Mouth Disease met in Mexico City on October 19.

Two significant points governing the future operation of the program were covered in resolutions passed by the group. One calls for the completion of the third vaccination of all susceptible animals within the quarantine zone and the continuance of the fourth round until the third is completed. At that time Commission technicians believe the fourth round will have covered most of the areas in which the disease has been concentrated. It should be possible then to determine satisfactorily whether or not mass vaccination should be continued.

If the mass vaccinations are halted, extensive inspection measures would be continued along with current practices of quarantine, destroying diseased and exposed animals, and thorough disinfection of the premises.

The second significant point calls for the destruction of all foot-and-mouth disease virus in Mexico at the time the Commission decides that enough vaccine is in reserve to complete the mass vaccination program. Live virus is necessary in the production of foot-and-mouth disease vaccine. The destruction of all supplies of virus would be a safety measure to help prevent any possible reinfection from sources where live virus is handled.

#### Commission Laboratory Begins Operation

A new vaccine production, testing, and serological laboratory in Palo Alto, a suburb of Mexico City was dedicated on September 3, 1949. It was built by Mexico and equipped by the United States for use by the Joint Commission for the Eradication of Foot-and-Mouth Disease.

Major work of the new laboratory is the manufacture of vaccine required to continue repeated vaccinations as outlined by the current program. In addition, the serological work will be of great benefit in providing assistance in the rapid identification of viruses causing vesicular conditions, manifesting symptoms almost identical to those of foot-and-mouth disease, but much less serious in effect.

#### Recent Outbreaks Include Disease Type New to Mexico

There have been only four active centers of foot-and-mouth disease discovered in Mexico since July, 1949. On October 19 the disease was reported on one ranch in the Municipio of Chicoloapan, State of Mexico, about 15 miles from Mexico City. Later tests, conducted at the Commission laboratory in Mexico City and confirmed at the Foot-and-Mouth Disease Research Institute of Pirbright, England, showed the infection to be caused by type "O" virus which had not been present before in the current Mexican outbreak. The infection since 1946 had been entirely from type "A" virus, and immunity built up against one type is not effective against exposure to another.

A strict quarantine was immediately placed upon the infected premises in Chicoloapan and the 269 animals involved were destroyed. The ranch was thoroughly disinfected twice, and intensive re-inspections and vaccinations of animals in the immediate vicinity were begun. At the present time there has been no evidence of further spread of the type "O" infection, but commission employees are prepared to move rapidly against sporadic outbreaks if they should occur. In the event type "O" virus should become widespread it probably would be necessary to provide a vaccine which would develop resistance to both virus types "A" and "O".

The other outbreaks occurred in the States of Veracruz and Puebla. Identification of the infection was complicated by the widespread incidence of vesicular stomatitis in those areas. Constant tests and inspections were necessary to distinguish between the two diseases. However, in these four cases, 609 animals were found to be infected or exposed to foot-and-mouth disease and destroyed. Intensive inspections have showed no spread from these centers.

#### U. S. Editors Visit Mexican Program

A group of six farm publication editors from the U. S. visited Mexico during the first week in November to get an on-the-spot view of the foot-and-mouth disease control and eradication program. The editors traveled at their own expense to meet with representatives of the U. S. Department of Agriculture and the Joint Mexican-United States Commission.

The group was received by Commission Director Oscar Flores and Co-director Harry H. Johnson as well as other Mexican and U. S. officials. They visited offices and laboratories in and around Mexico City in addition to various district headquarters. They traveled through areas of the quarantine zone to see vaccination and inspection brigades in action.

The group included the following editors: Henry Biederman, "The Cattleman"; Paul Friggens, "Farm Journal"; Ralph Hansen, "The Dakota Farmer"; George Montgomery, "Cappers Farmer"; T. C. Richardson, "The Farmer Stockman"; J. S. Russell, "Des Moines Register-Tribune".

#### European Research Directors Confer With U. S. Scientists

In late October and early November a group of European directors of foot-and-mouth disease research came to the United States to confer with American scientists on methods of control, eradication and research. The group was made up of Dr. Eric G. Fogedby, Director of the Danish Foot-and-Mouth Disease Research Laboratory, Lindholm, Denmark; Dr. H. S. Frenkel, Director of the Netherlands Foot-and-Mouth Disease Research Laboratory, Amsterdam, Holland; and Dr. Georges A. Moosbrugger, Director of the Swiss Foot-and-Mouth Disease Research Laboratory, Basle, Switzerland.

In December Dr. Galloway, Director of the British Foot-and-Mouth Disease Research Laboratory, Pirbright, England, visited the U. S. and Mexico to confer with officials administering the eradication program in Mexico and with those planning facilities for research in this country.

[Attachment:- "The Foot-and-Mouth Disease Situation - November 10, 1949" - Map]



# THE FOOT-AND-MOUTH DISEASE SITUATION IN MEXICO

NOVEMBER 10, 1949

BASED ON REPORTS RECEIVED BY THE U.S. DEPARTMENT OF AGRICULTURE

